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AMENDMENTS TO THE CLAIMS

Please cancel claim 10.

Please amend the claims as follows.

3. (Previously Presented) The process of claim 21, wherein step d) of leaching the sulfated material further comprises:

d1) reacting the sulfated material with water for a period of time, and under temperature and pressure conditions sufficient to generate said aqueous solution comprising the one or more other solubilized metal values; and

d2) filtering said aqueous solution comprising the one or more other solubilized metal values to separate remaining material solids from said aqueous solution.

10. (Canceled)

11. (Currently Amended) A process for selectively extracting scandium values from a source material comprising scandium, fluorine, tantalum, and/or niobium, the process comprising the steps of: ~~The process of claim 10 wherein the source material further comprises fluorine, tantalum and/or niobium and step a) further comprises the steps of:~~

a1) reacting the source material with a solution of a first mineral acid for a period of time, and under temperature and pressure conditions sufficient, to solubilize at least a portion of tantalum and niobium from the starting material and create a solution comprising tantalum and niobium metal values and a solids residue comprising fluorine and scandium metal values, and at least partially depleted in tantalum and niobium metal values;

a2) separating and drying the solids residue

a3) reacting the solids residue with a second mineral acid comprising sulfuric acid for a period of time, and under temperature and pressure conditions sufficient, to liberate hydrogen fluoride gas and to generate a sulfated material comprising scandium metal values and at least partially depleted in fluorine metal values; and

a4) leaching the sulfated material to solubilize scandium metal values contained in the sulfated material and generate said aqueous solution comprising scandium metal values and a solid phase at least partially depleted in scandium; and

b) selectively extracting a scandium value from said aqueous solution.

12. (Previously Presented) The process of claim 11, wherein the step a4) of leaching the sulfated material comprises the steps of:

a4a) reacting the sulfated material with water for a period of time, and under temperature and pressure conditions sufficient to generate said aqueous solution comprising solubilized scandium metal values; and

a4b) filtering said aqueous solution comprising solubilized scandium metal values to separate remaining material solids from said aqueous solution.

13. (Previously Presented) The process of claim 12 wherein step b) of selectively extracting a scandium metal value from said aqueous solution comprising solubilized scandium metal values comprises the steps of:

b1) contacting said aqueous solution comprising solubilized scandium metal values with an organic medium which includes a diluent and an extractant, said diluent being immiscible with said aqueous solution, thereby producing an organic phase comprising scandium metal values and an aqueous raffinate phase at least partially depleted in scandium metal values;

b2) separating said organic phase from said raffinate phase;

b3) stripping scandium from said organic phase by contacting said organic phase with a scandium stripping agent, said scandium stripping forming a phase comprising scandium from said resultant organic phase and an aqueous phase comprising said scandium stripping agent and a final organic phase.

14. (Previously Presented) A process for selectively extracting scandium metal values from a source material comprising scandium, fluorine, tantalum and/or niobium metal values the process comprising the steps of:

a) reacting the source material with a solution of a first mineral acid for a period of time, and under temperature and pressure conditions sufficient to solubilize tantalum and niobium into solution and thereby generate a solution comprising tantalum and/or niobium metal values, and a remaining material at least partially depleted in tantalum and/or niobium and comprising fluorine and/or scandium metal values;

b) separating and drying the remaining material;

c) reacting the remaining material with a second mineral acid for a period of time, and under temperature and pressure conditions sufficient to liberate hydrogen fluoride gas and to generate a sulfated material at least partially depleted in fluorine metal values and comprising scandium metal values;

d) reacting the sulfated material with water for a period of time, and under temperature and pressure conditions sufficient to generate an aqueous solution comprising scandium metal values;

e) filtering said aqueous solution comprising scandium metal values to separate remaining material solids from the aqueous solution;

f) contacting said aqueous solution resulting from step e) comprising solubilized scandium metal values with an organic medium which includes a diluent and an extractant, said diluent being immiscible with said aqueous solution resulting from step e), thereby producing an organic phase comprising scandium metal values and an aqueous raffinate phase at least partially depleted in scandium metal values;

g) separating said organic phase from step f) comprising scandium metal values from said raffinate phase at least partially depleted in scandium metal values;

h) stripping scandium metal values from said organic phase by contacting said organic phase from step g) with a scandium stripping agent, said stripping forming a scandium phase comprising scandium metal values from said organic phase, an aqueous phase comprising said scandium stripping agent and a final organic phase comprising said diluent and said extractant.

15. (Previously Presented) A process for selectively extracting scandium metal values from a sulfated starting material which includes scandium metal values comprising the steps of:

a) reacting the sulfated material with water for a period of time, and under temperature and pressure conditions sufficient to generate an aqueous solution comprising scandium metal values;

b) filtering said aqueous solution comprising scandium metal values from step a) to separate material solids from the aqueous solution;

c) contacting said aqueous solution from step b) comprising solubilized scandium metal values with an organic medium which includes a diluent and an extractant, said diluent being immiscible with said aqueous solution, thereby producing an organic phase comprising scandium metal values and an aqueous raffinate phase at least partially depleted in scandium metal values;

d) separating said organic phase comprising scandium metal values generated in step c) from said raffinate phase at least partially depleted in scandium metal values;

e) stripping scandium metal values from said organic phase by contacting said organic phase from step d) with a scandium stripping agent, said stripping forming a scandium phase comprising scandium metal values from said organic phase, and aqueous phase comprising said scandium stripping agent and a final organic phase comprising said diluent and said extractant.

16. (Currently Amended) A process for selectively extracting scandium values from an ore residue comprising scandium, fluorine, tantalum, and/or niobium, the process comprising the steps of: ~~The process of claim 10 wherein the source material in step a) is an ore residue further comprising fluorine, tantalum, and/or niobium and step a) further comprises the steps of:~~

a1) reacting the ore residue with a solution of a first mineral acid for a period of time, and under temperature and pressure conditions sufficient, to solubilize at least a portion of tantalum and niobium from the source material and create a solution comprising tantalum and niobium metal values and a solids residue comprising fluorine and scandium metal values and at least partially depleted in tantalum and niobium metal values:

a2) separating and drying the solids residue generated in step a1);

a3) reacting the solids residue from step a2) with a second mineral acid comprising sulfuric acid for a period of time, and under temperature and pressure conditions sufficient, to liberate hydrogen fluoride gas and to generate a sulfated material comprising scandium metal values and at least partially depleted in fluorine metal values; and

a4) leaching the sulfated material to solubilize scandium metal values contained in the sulfated material and generate said aqueous solution comprising scandium metal values and a solid phase at least partially depleted in scandium metal values; and

b) selectively extracting a scandium value from said aqueous solution.

17. (Previously Presented) The process of claim 16 wherein the first mineral acid in step a1) comprises sulfuric acid.

18. (Previously Presented) The process of claim 17 wherein step b) of extracting a scandium metal value from said aqueous solution comprises:

b1) contacting said aqueous solution with an organic medium which includes a diluent and an extractant, said diluent being immiscible with said aqueous solution thereby producing an organic phase comprising scandium metal values and a raffinate at least partially depleted in scandium metal values; and

b2) contacting said organic phase generated in step b1) with a scandium stripping agent to form a scandium phase comprising at least a portion of the scandium metal values present in said organic phase; an additional aqueous phase comprising said scandium stripping agent; and a final organic phase at least partially depleted in scandium metal values.

19. (Currently Amended) The process of claim 18, wherein the organic medium of step b1) comprises DEPHA (Di 2-ethylhexylphosphoric acid) as an extractant and an aliphatic non-soluble ~~C9-c16~~ $C_9 - C_{16}$ hydrocarbon as a diluent.

20. (Previously Presented) The process of claim 19 wherein the scandium stripping agent of step b2) comprises sodium hydroxide.

21. (Previously Presented) A process for selectively extracting a metal value from a source material which includes fluorine and one or more solubilizable metal values, the solubilizable metal values including tantalum or niobium metal values, the process comprising the steps of:

a) reacting the source material with a solution of a first mineral acid for a period of time, and under temperature and pressure conditions sufficient, to solubilize at least a portion of the tantalum or niobium metal values from the source material;

b) separating and drying the undissolved material;

c) reacting the undissolved material from step b) with a second mineral acid comprising sulfuric acid for a period of time, and under temperature and pressure conditions sufficient to liberate hydrogen fluoride gas and to generate a sulfated material;

d) leaching the sulfated material from step c) to solubilize at least a portion of the metal values contained therein and generate an aqueous solution comprising said solubilized metal values and a solid phase at least partially depleted in the solubilized metal values; and

e) selectively extracting a solubilized metal value from said aqueous solution.

22. (Previously Presented) A process for selectively extracting a scandium metal value from an ore reside from a tantalum production process which includes fluorine, scandium and one or more additional solubilizable metal values, the additional solubilizable metal values include tantalum or niobium metal values, the process comprising the steps of:

a) reacting the ore residue with a sulfuric acid solution to solubilize at least a portion of the tantalum or niobium metal values from the ore residue and produce an undissolved material;

b) separating the undissolved material from step a);

c) separating and removing fluorine values from the ore residue by reacting the undissolved material from step b) with sulfuric acid for a period of time, and under temperature and pressure conditions sufficient to liberate hydrogen fluoride gas and to generate a sulfated material;

d) leaching the sulfated material from step c) in water to solubilize at least a portion of the scandium metal values contained therein and generate an aqueous solution comprising said solubilized scandium metal values and a solid phase at least partially depleted in the scandium solubilized metal values;

e) selectively extracting solubilized scandium metal values from said aqueous solution generated in step d) by contacting said aqueous solution with a sodium hydroxide stripping agent to produce a solid phase comprising scandium metal values and separating the solid phase from the remaining aqueous solution; and

f) drying and recovering the scandium metal values.